

**UNITED STATES PATENT AND TRADEMARK OFFICE**  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,010,029 B1  
 APPLICATION NO. : 09/687238  
 DATED : March 7, 2006  
 INVENTOR(S) : Ayman F. Naguib and Arthur R. Calderbank

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE SPECIFICATION

On the Coversheet, (57) ABSTRACT, the equation in the Abstract

$$\xi_j(k) = \left| r(k) - \sum_{l=L_1+1}^{L_1} \tilde{h}_j(l) \tilde{s}(k-l) - \sum_{l=L_1+1}^{L+1} \tilde{h}_j(l) \hat{s}(k-l) \right|^2 ,$$

should read

$$\xi_j(k) = \left| r(k) - \sum_{l=0}^{L_1} \tilde{h}_j(l) \tilde{s}(k-l) - \sum_{l=L_1+1}^{L+1} \tilde{h}_j(l) \hat{s}(k-l) \right|^2 ,$$

Column 2, line 35, equation

$$\xi_j(k) = \left| r(k) - \sum_{l=L_1+1}^L \tilde{h}_j(l) \tilde{s}(k-l) - \sum_{l=L_1+1}^{L-1} \tilde{h}_j(l) \hat{s}(k-l) \right|^2 ,$$

should read

$$\xi_j(k) = \left| r(k) - \sum_{l=0}^{L_1} \tilde{h}_j(l) \tilde{s}(k-l) - \sum_{l=L_1+1}^{L+1} \tilde{h}_j(l) \hat{s}(k-l) \right|^2 ,$$

Signed and Sealed this  
 Eighth Day of May, 2012

David J. Kappos  
*Director of the United States Patent and Trademark Office*

**CERTIFICATE OF CORRECTION (continued)**  
**U.S. Pat. No. 7,010,029 B1**

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Column 6, line 35, equation

$$\xi_j(k) = \left| r(k) - \sum_{l=L_1+1}^{L_1} \tilde{h}_j(l) \tilde{s}(k-l) - \sum_{l=L_1+1}^{L-1} \tilde{h}_j(l) \hat{s}(k-l) \right|^2 ,$$

should read

$$\xi_j(k) = \left| r(k) - \sum_{l=0}^{L_1} \tilde{h}_j(l) \tilde{s}(k-l) - \sum_{l=L_1+1}^{L-1} \tilde{h}_j(l) \hat{s}(k-l) \right|^2 ,$$

IN THE CLAIMS

Column 7, line 1, equation

$$\xi_j(k) = \left| r(k) - \sum_{l=L_1+1}^{L_1} \tilde{h}_j(l) \tilde{s}(k-l) - \sum_{l=L_1+1}^{L+1} \tilde{h}_j(l) \hat{s}(k-l) \right|^2 ,$$

should read

$$\xi_j(k) = \left| r(k) - \sum_{l=0}^{L_1} \tilde{h}_j(l) \tilde{s}(k-l) - \sum_{l=L_1+1}^{L+1} \tilde{h}_j(l) \hat{s}(k-l) \right|^2 ,$$